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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/702,768

11/01/2000

Xixian Chen

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05/10/2004

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CANADA

EXAMINER

KIM, KEVIN

ART UNIT

PAPER NUMBER

2634

DATE MAILED: 05/10/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/702,768

Applicant(s)

CHEN ET AL.

Examiner

Kevin Y Kim

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 November 2000.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 33-41 is/are allowed.
- 6) ☒ Claim(s) 1, -3, 13-15, 27-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 November 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 13-15, 27 and 28 are rejected under 35 U.S.C. 102(e) as being anticipated by Sourour et al (US 6,621,858).

Consider claims 1, 13, 27, 28. Referring to Fig. 8A, Sourour et al discloses a method and apparatus of searching multipath components of a CDMA signal using a Rake receiver, see col. 2, line 65 – col. 3, line 10, comprising the steps of determining coherent correlations between a portion of the CDMA signal and a corresponding portion of a known code offset, see col. 5, lines 59-66, for a each of a plurality of correlation periods which are not entirely contiguous, see col. 6, lines 14-15 and for each of a plurality of multipath delays within a search window, see col. 4, lines 6-10. The coherent correlations are then non-coherently combined into a search statistic for the multipath delay. See col. 8, lines 47-60. Additionally with respect to claim 13, a typical CDMA communication system includes a mobile unit that searches for multipath components.

Regarding claims 2, 14, since the correlation periods can be non-contiguous they are separated by a respective non-zero time interval. See col. 6, lines 2-3 and lines 14-15.

Regarding claims 3, 15, Fig. 8A shows uniformly spaced correlation periods.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sourour et al as applied to claim 1 above and further in view of Newson et al (US 6,320,898).

Sourour et al disclose all the subject matter claimed, as explained above, but for “a base station adapted to implement a method” of claim 1. Newson et al teaches a searcher at a base station to determine the amount of delay in order to synchronize the local replicas with the received signal. See col. 1, lines 56- 65. Thus, it would have been obvious to one skilled in the art at the time the invention was made to implement the searching method of Sourour et al at a base station in order for the base station to synchronize the received signal from a mobile station, as taught by Newson et al.

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6. Claims 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sourour et al as applied to claim 1 above and further in view of Bondarowicz et al (US 6,601,078).

Sourour et al disclose all the subject matter claimed, as explained above, but for instructions stored in a computer readable medium causing a computing platform to execute the search method. Bodarowicz et al teaches that one skilled in the art understands that correlations can be performed in a combination of hardware and software, such a computer program being executed by a microprocessor. See col. 6, lines 54-58. Thus, it would have been obvious to one skilled in the art at the time the invention was made to perform the searching method of Sourour et al by executing a computer program with a microprocessor, as taught by Bondarowicz et al because such a software implementation provides many advantages such as easy modification and importability.

Claim Objections

7. Claims 29-33 are objected to because of the following informalities: Claims 29 and 30, and claims 31 and 32 are identical respectively. One of each should be canceled. Appropriate correction is required.

Allowable Subject Matter

8. Claims 4-10, 16-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 33-41 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Y Kim whose telephone number is 703-305-4082. The examiner can normally be reached on 8AM --5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

kvk


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TECHNOLOGY CENTER 2600